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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,224	01/16/2004	Jyouji Moriyama	247615US3	5732
22850	7590	08/10/2007		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER FICK, ANTHONY D	
			ART UNIT 1753	PAPER NUMBER
			NOTIFICATION DATE 08/10/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/758,224

Applicant(s)

MORIYAMA ET AL.

Examiner

Anthony Fick

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 1/16/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities: in line 4, the phrase "and the N type thermoelectric element" appears to be mistakenly placed within the claim. As is, the claim reads that the N type element is connected with the P type element and the N type element and it does not appear as if applicant wants the N type element connected to itself. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 3 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 3 recites the limitation "the electrode circuit and the electric circuit are provided at a surface of the insulation substrate respectively" in lines 2-3. It is unclear if applicant means for the circuits to be provided on the same surface of the substrate or on different respective surfaces. For examination purposes, the examiner will consider the claim to mean different surfaces.

5. Claim 5 recites the electrode circuit is formed on two or more faces. It is unclear what faces are being referred to within the claim and whether the faces are of the same component or multiple components.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1 through 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Zamboni et al. (U.S. 6,492,585).

Zamboni discloses a thermoelectric device and method of manufacturing the device.

Regarding claim 1, figure 7 shows a thermoelectric device comprising a P type thermoelement, 706, an N type thermoelement, 706, connected electrically in series, an electrode circuit contacting the P type element and N type element, 765 and 766, an insulation substrate, 712, at least one electric circuit forming a layer with the electrode circuit via the insulation substrate, 749 and 746, and a conduction member for electrically conducting the electrode circuit and the electric circuit, 770 or 772.

Regarding claim 2, figure 7 further shows the P type and N type elements linearly positioned.

Regarding claim 3, figure 7 shows the electrode and electric circuits on surfaces of the insulation substrate.

Regarding claim 4, figure 7E shows the insulation substrate, 823, containing a penetration bore, 835, and the conduction member provided at the penetration bore, 836 or 837.

Regarding claim 5, figure 7 shows a thermoelectric device comprising a P type thermoelement, 706, an N type thermoelement, 706, connected electrically in series, an electrode circuit having a heat radiating side electrode circuit connecting the heat radiating side of the P type element and N type element, 767 and 764, a cooling side electrode circuit connecting the cooling surface of the P type element and N type element, 766 and 765, wherein the electrode circuits are formed on two faces (the circuits are contacted to the a face of each element, thus at least 2 faces).

Regarding claim 6, figure 7 further shows an insulation substrate, 712, having one surface as one face at which the electrode circuit is provided (top of the substrate) and the other surface as another face at which an electric circuit, 749 and 746, is provided which electrically conducts to the electrode circuit via conduction members 770 or 772.

Regarding claim 7, Zamboni discloses arranging the P type thermoelements and N type thermoelements alternately in series and connecting an electrode circuit to the elements (figures 1, 2 and 3) and positioning bar shaped elements (figures 2 and 7) in parallel with each other at an electric circuit. The thermoelements of Zamboni are produced by cutting larger elements as required by the claim.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Fick whose telephone number is (571) 272-6393. The examiner can normally be reached on Monday - Friday 7 AM to 4 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Anthony Fick *ADF*
AU 1753
August 3, 2007


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SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700